



BENGALURU CITY UNIVERSITY

CHOICE BASED CREDIT SYSTEM

(as per SEP 2024)

Syllabus for I & II Semester B.Sc. Fashion & Apparel Design

2024-25

Proceedings of the Board of Studies meeting in Fashion & Apparel Design (UG) held on 3rd July 2024 at 10.30 AM in the Department of Apparel Technology & Management, Bengaluru City University, Bengaluru.

The Chairman welcomed all the members and the agenda was taken up for discussion.

Item No. 1. Approval of the scheme and syllabus of I & II Semesters B.Sc. (Fashion & Apparel Design) course.

The members deliberated on the scheme and syllabus of I & II Semesters and after incorporating the necessary changes the Board approved the scheme and syllabus of I & II Semesters to be implemented from the academic year 2024-25.

Item No. 2. Approval of the scheme and syllabus of I & II Semesters B.Sc. (Interior Design & Decoration) course.

The members deliberated on the scheme and syllabus of I & II Semesters and after incorporating the necessary changes the Board unanimously approved the scheme and syllabus of I & II Semesters to be implemented from the academic year 2024-25.

Item No. 3. Approval of panel of Examiners for B.Sc. (Fashion & Apparel Design) for the year 2024-25

The list of panel of examiners for B.Sc. (Fashion & Apparel Design) course for the year 2024-25 was approved.

Item No. 4. Approval of panel of Examiners for B.Sc. (Interior Design and Decoration) for the year 2024-25

The list of panel of examiners for B.Sc. (Interior Design & Decoration) course for the year 2024-25 was placed and the same was approved.

The Chairman thanked all the members for their active participation in the meeting.

Members Present:

Smt. Bharathi PS

Member

Bharathi P.S.

Mrs. Archana B

Member

B. Archana

Dr. Renjini G

Member

Dr. Renjini G

Mr. Devraj

Member

Mr. Devraj

Dr. Sandhya Ravi

Member

Dr. Sandhya Ravi
3/7/24

Mrs. Sneha Manjunath

Invitee

Mrs. Sneha Manjunath
3/7/2024

Dr. R. Sudhakar

Chairperson

Dr. R. Sudhakar
3/8/2024

Programme outcomes

PO1: Critical Thinking: Engage in informed decision-making processes following the identification of assumptions that underpin one's thoughts and actions. This involves evaluating the accuracy and validity of these assumptions, as well as examining one's ideas and decisions from various perspectives, encompassing intellectual, organizational, and personal dimensions.

PO2: Effective Communication: Engage in clear speaking, reading, writing, and listening both in face-to-face interactions and through electronic media in both English and an Indian Language. Understand the world by weaving together connections among individuals, concepts, literature, media and technology.

PO3: Social Interaction: Gather perspectives from others, facilitate conflict resolution and assist in the attainment of consensus within collective environments.

PO4: Efficient Citizenship: Exhibit empathetic social concerns and a focus on equity at the heart of national development, coupled with the capacity to engage in civic life through volunteering, and to act with a well-informed awareness of pertinent issues.

PO5: Ethics: Acknowledge the existence of diverse value system, including one's own, comprehend the ethical dimensions inherent in decision-making, and assume responsibility for the consequences of those decisions.

PO6: Environmental Sustainability: Gain comprehension of the challenges presented by environmental context in the realm of sustainable development.

PO7: Self-directed and lifelong learning: Acquire the capacity to participate in independent and continuous learning within the wide-ranging scope of socio-technological changes is crucial for self-directed and lifelong learning.

PO8: Modern Tool Usage: Able to use a range of industrial instruments, methods, IT systems, and software.

PO9: Design Process Proficiency: Demonstrate competency in the iterative design process, including research, concept development, prototyping, and refinement, to create innovative and functional fashion and apparel designs.

PO10: Fashion Industry Awareness: Develop a comprehensive understanding of the global fashion industry, including its historical and contemporary trends, market dynamics, supply chain management, and consumer behaviour, to inform design decisions and career pathways.

PO11: Textile Knowledge and Application: Acquire knowledge of textiles and materials used in fashion and apparel design, including their properties, sustainability considerations, and appropriate application in design projects.

PO12: Fashion Business Acumen: Gain proficiency in fundamental business principles relevant to the fashion industry, such as marketing, merchandising, branding, and retail management, to effectively navigate and contribute to the business aspects of fashion and apparel design.

Programme Specific Outcomes:

PSO 1: Comprehensive understanding of Fashion, Art and Design Concepts: This involves a detailed examination of the content within various disciplines of Fashion, Art and Design, alongside an understanding of how these concepts have evolved over time.

PSO 2: Integration of Design Thinking and Sensibility: Master the art of making informed design decisions throughout diverse projects. Possess the capacity to think innovatively, adhere to the design process to generate visually appealing designs. Exhibiting proficiency in design, along with an understanding of design principles, and creativity within the creative sector.

PSO 3: Application of Design Concepts: The integration of creative thinking and design principles within the design ecosystem and its wider application.

PSO 4: Visual Communication and creative exploration: Cultivate a design language distinctive to an individual, serving as a medium for the expression of ideas and thought processes. It involves the capability to represent these ideas through various modes. Thereby facilitating effective visual communication. This process encompasses research, exploration, and the formulation of conclusions in relation to a specific design or creative challenge.

PSO 5: Analysis of Design Environment: This involves the identification of prevailing trends and opportunities within the Fashion industry. It also entails the strategies moulding of the acquired skill set in the most efficient and sustainable manner.

PSO 6: Sustainable Fashion Practices: Demonstrate knowledge and application of sustainable principles and practices in fashion design and production, including eco-friendly materials, ethical sourcing, and minimizing environmental impact throughout the lifecycle of garments.

PSO 7: Technical Proficiency in Garment Construction: Acquire proficiency in garment construction techniques, pattern making, draping, and sewing skills to translate design concepts into tangible garments with precision and craftsmanship.

PSO 8: Fashion Trend Forecasting and Analysis: Develop skills in researching, analysing, and forecasting fashion trends, including consumer behaviour, cultural influences, and market demands, to inform design decisions and strategies.

PSO 9: Collaborative Design Projects: Engage effectively in collaborative design projects, demonstrating teamwork, leadership, and communication skills while integrating diverse perspectives and expertise to achieve collective design goals.

PSO 10: Portfolio Development: Create a professional portfolio showcasing a range of fashion design projects, demonstrating creativity, technical skills, conceptual thinking, and aesthetic sensibility, essential for career advancement and further education opportunities.

SCHEME OF EXAMINATION								
B.Sc. FASHION AND APPAREL DESIGN								
SEMESTER I								
CODE	Subjects	Paper Theory/ Practical	Instruction Hrs./week	Duration of Exam (Hrs.)	Marks			CREDITS
					IA	Exam	Total	
L1	Language I	Theory	4	3	20	80	100	3
L2	Language II	Theory	4	3	20	80	100	3
FAD 1.1 T	Fiber and Yarn Science	Theory	4	3	20	80	100	3
FAD 1.1 P	Fiber and Yarn Science	Practical	3	3	10	40	50	2
FAD 1.2 T	Fundamentals of Fashion Design	Theory	4	3	20	80	100	3
FAD 1.2 P	Fundamentals of Fashion Design	Practical	3	3	10	40	50	2
FAD 1.3 T	Basics of Pattern Making and Sewing	Theory	4	3	20	80	100	3
FAD 1.3 P	Basics of Pattern Making and Sewing	Practical	3	3	10	40	50	2
	Compulsory 1 (Constitutional Values)	Theory	2	1.5	10	40	50	2
				Total	700			23

B.Sc. FASHION AND APPAREL DESIGN								
SEMESTER II								
CODE	Subjects	Paper Theory/ Practical	Instruction hrs./week	Duration of Exam (hrs.)	Marks			CREDITS
					IA	Exam	Total	
L1	Language I	Theory	4	3	20	80	100	3
L2	Language II	Theory	4	3	20	80	100	3
FAD 2.1 T	Fabric Science	Theory	4	3	20	80	100	3
FAD 2.1 P	Fabric Science	Practical	3	3	10	40	50	2
FAD 2.2 T	Fashion Design and Illustration	Theory	4	3	20	80	100	3
FAD 2.2 P	Fashion Design and Illustration	Practical	3	3	10	40	50	2
FAD 2.3 T	Pattern Making and Garment Construction I	Theory	4	3	20	80	100	3
FAD 2.3 P	Pattern Making and Garment Construction I	Practical	3	3	10	40	50	2
	Compulsory 2 (Constitutional Values)	Theory	2	1.5	10	40	50	2
				Total	700			23

I Semester
B.Sc. Fashion and Apparel Design
FAD 1.1 T - Fiber and Yarn Science (Theory)

FAD 1.1 T	Exam Hours: 03 Hrs.
Total Hrs.: 56	Exam Marks: 80
Number of Theory Credits: 3	Internal Assessment: 20

Course outcomes: On successful completion of the course, the students will be able to	
1.	Understand the classification, characteristics and use of fibers.
2.	Gain knowledge about fibers formation and yarns manufacturing.
3.	Understand the principle and process of yarn spinning method
4.	Apply novelty yarns with specific textures, structures and properties for targeted applications
5.	Conduct test to measure yarn properties for various applications

Unit-1	14 Hrs.
<ul style="list-style-type: none"> • Introduction to textile fibers. Terminology- Textile fiber: Staple and Filament, Textile Yarn. Sources and classification of fibers. General, physical, and chemical properties of textile fibers. • Cellulosic fibers- Cotton, Linen, Banana, Hemp, Jute. Regenerated cellulosic fibers - Viscose rayon, acetate rayon, Tencel, modal and bamboo. Their source, production process, microscopic appearance, properties, and end use. • Protein fibers - Silk, wool – source, production process, microscopic appearance, properties, and end use. 	
Unit-2	14 Hrs.
<ul style="list-style-type: none"> • Synthetic fibers - Nylon, polyester, acrylic, modacrylic, elastomeric fibers (spandex and Lycra), Kevlar, carbon- properties and end use. • Polymers - Definition: Polymerization, Degree of polymerization. • Types of polymers - Homo polymer & co-polymer. Types of polymerizations- Addition and Condensation. Requirements of fiber forming polymer, Concept of polymer orientation and crystallinity. Melt spinning, dry spinning and wet spinning methods for man-made fibers. 	
Unit-3	14 Hrs.
<ul style="list-style-type: none"> • Spinning - Definition and types. Classification of Yarn – Single, ply, corded. Yarn twist and yarn count. • Spinning Process - Ring and open-end yarn spinning. Flowchart for manufacturing process of carded, combed, and folded yarn, and their advantages. • Difference between rotor and ring spinning; woollen and worsted process; woven and knitted yarns. 	

Unit-4	14 Hrs.
<ul style="list-style-type: none"> • Blends – Introduction, types, advantages, properties, and end use. Cotton blends, wool blend, polyester blends. • Fancy (Novelty) yarns – Introduction, types, properties, and end use. Texturization– Introduction, types (simplex and complex yarns), properties and end use. Sewing threads- Introduction, types, properties, and end use. • Yarn testing- yarn twist and yarn count. 	

References
1. Bernard P. Corbman, “Textiles: Fiber to Fabric”, McGraw Hill Education, 6 th edition, 1995.
2. Billie J. Collier, Phyllis G. Tortora, “Understanding Textiles”, Pearson, 6 th edition, 2000.
3. Gohl E.P.G. Velensky, L.D, “Textile Science” CBS Publishers and Distributors, 2 nd edition, 2005.
4. Gordon Cook J, “Handbook of Textile Fibers”, Woodhead Publishing, 5 th revised edition, 1984.
5. Gilbert R. Merrill, “Cotton Opening and Picking”, Universal Publishing Corporation, 1999.
6. Hall A.J., “The standard Handbook of Textiles”, Wood Head Publishing, 8 th edition, 2004
7. Houck M M, “Identification of Textile Fibers”, Woodhead Publishing Ltd, 2009.
8. Joseph J. Pizzuto et. al., “Fabric Science”, Bloomsbury Publishing India Private Limited, 2011.
9. Sreenivasa Murthy H. V., Purushothama B, “Texturising”, Woodhead Publishing India Pvt. Ltd., 2017.
10. Sreenivasa Murthy H. V., “Introduction to Textile Fibres”, WPI Publishing, 2015.

**I Semester B.Sc.
FAD 1.1 P - Fiber and Yarn Science (Practical)**

FAD 1.1 P	Exam Hours: 03 Hrs.
Total Hrs.: 42	Exam Marks: 40
Number of Practical Credits: 2	Internal Assessment: 10

Course outcomes: On successful completion of the course, the students will be able to
1. 1. Identify and understand the properties of fiber and yarns.
2. Learn about the geometrical properties of yarn.
3. Acquire knowledge of fiber and yarn manufacturing.

Unit – 1	16 Hrs.
<ul style="list-style-type: none"> • Identification of different natural fibers - Cotton, silk, wool, and jute by physical (feel test, burning test and microscopic test) and chemical (solubility test). • Identification of different man-made fibers - Viscose, polyester, nylon, and acrylic by physical (feel test, burning test and microscopic test) and chemical (solubility test). 	
Unit – 2	06 Hrs.
<ul style="list-style-type: none"> • Geometrical properties of yarn - Yarn twist and yarn count. 	
Unit – 3	10 Hrs.
<ul style="list-style-type: none"> • Sewing threads - No. of ply, yarn twist, yarn count and yarn defects • Visual identification of various sewing thread packages. 	
Unit – 4	10 Hrs.
<ul style="list-style-type: none"> • Identification of yarns by physical method - Spun, filament yarns, ply, and fancy (novelty) yarns. • Folio Development of various yarns. 	

I Semester
B.Sc. Fashion and Apparel Design
FAD 1.2 T - Fundamentals of Fashion Design (Theory)

FAD 1.2 T	Exam Hours: 03 Hrs.
Total Hrs.: 56	Exam Marks: 80
Number of Theory Credits: 3	Internal Assessment: 20

Course outcomes: On successful completion of the course, the students will be able to

1. Acquire Comprehensive understanding of fashion terminologies.
2. Understand Elements, Principles and Techniques of fashion design.
3. Analyze and apply fundamentals of design in fashion.
4. Apply the color theory and their application.
5. Develop strong sketching skills.

Unit – 1	14 Hrs.
<ul style="list-style-type: none"> • Fashion and illustration – Introduction, Terminologies - Fashion, style, taste, trend, fad, classics, boutique, haute couture, designer, Prêt a Porter, Croqui, muse, knock off, avant-garde, toile, atelier, bespoke, collage, frottage, montage. • Silhouette – Definition, types of silhouettes – natural, slim line, wedge, hourglass, extreme volume silhouette. • Design - Definition and types – structural designs and decorative designs - Natural/Geometric/ Abstract/ Stylized/ Ethnic/ Conventional, requirements of a good structural and decorative design, Application of structural and decorative design in dress designing. 	
Unit 2	14 Hrs.
<ul style="list-style-type: none"> • Elements of Design – Line, Shape, Space, Form, Size, Colour and Texture. • Principles of design – Balance: Formal, Informal, and Radial; Rhythm: through Repetition, Radiation and Gradation; Emphasis; Harmony; and Proportion. Their advantages and uses in fashion. • Art media and Applications – Dry and Wet Media: Pencils, Colour Pencils, Oil Pastels, Water Colours, Poster Colours, Acrylic Colours & Fabric Colours, Markers. 	

Unit 3	14 Hrs.
<ul style="list-style-type: none"> • Colour- Introduction. Colour wheel: Primary, Secondary, and Tertiary. Colour Dimensions: Hue, Value and Chroma, Tint, Tone, Shade. Colour Schemes: Monochromatic, analogous, complementary, split complementary, triadic, square, and rectangle (or tetradic). • Colour theory- Prang & Munsell colour systems. Colour psychology- colour and emotions, Indian approach to colour. • Basic sketching techniques-Introduction, types, and techniques of sketching from life, perspective, and its uses. Grid technique of rendering, principles of composition. 	
Unit – 4	14 Hrs.
<ul style="list-style-type: none"> • Introduction to anatomy, study of bone and muscular structure, proportions of males, females, and children. Study of face, torso, legs, and arms. • Introduction to fashion art, proportion, and the fashion figure - 8 head, 10 head, 12 head theory of fashion drawing. • Theory of Clothing - Origin, Fashion cycle, Length of cycle, Fashion. Theories – Trickle Up, Trickle Down and Trickle Across. Consumer identification with fashion life cycle - Fashion Leaders; Style Icon; Followers; Innovators; Motivators; Victims. Principles of fashion. International major fashion centers. 	

References
1. Elisabetta Drudi, Tiziana Paci, “Figure Drawing for Fashion Design”, Pepin Press Publication, 2022.
2. Gavin Ambrose, Paul Harris, “The Visual Dictionary of Fashion Design”, Bloomsbury Publishing India Private Limited, 2007.
3. Harrison, Hazel. “The Encyclopedia of Drawing Techniques”, Tunbridge Wells, Kent, United Kingdom. 2014.
4. James Stockton, “Designers Guide to Colour”, Chronicle Books, San Francisco, 1984.
5. Janet Best, “Colour Design: Theories and Applications”, Woodhead Publishing Ltd., 2012
6. Maier, Manfred, “Basic Principles of Design”, Van Nostrand Reinhold, 1980.
7. Sharon L Tate, Mona S Edwards, “Inside Fashion Design”, Pearson Education India, 5 th ed. 2006.
8. Stanyer Peter, “The Complete Book of Drawing Techniques”, Arcturus Publishing Ltd., 2003.
9. Steven Stipelman, “Illustrating Fashion Concept to Creation”, Bloomsbury, 2017.
10. Tony Glenville, “New Icons of Fashion Illustration”, Thames & Hudson, 2013.

**I Semester B.Sc.
FAD 1.2 P - Fundamentals of Fashion Design (Practical)**

FAD 1.2 P	Exam Hours: 03 Hrs.
Total Hrs.: 42	Exam Marks: 40
Number of Practical Credits: 2	Internal Assessment: 10

Course outcomes: On successful completion of the course, the students will be able to
1. Understand various art media.
2. Demonstrate proficiency in creating design.
3. Experiment with color palettes.

Unit – 1	12 Hrs.
<ul style="list-style-type: none"> • Introduction to art media and its applications. Line sketching, drawing technique and painting techniques, object drawing, simple rendering of art materials using pencil and colour pencils. • Still life of simple objects and fabrics draped at a distance using wet media. Nature sketch of flowers and leaves using pastels and charcoal, landscape painting using mix media. Free hand, Grid technique of drawing and rendering. Design - Natural/ Geometric/ Abstract/ Stylized/ Conventional. 	
Unit – 2	10 Hrs.
<ul style="list-style-type: none"> • Elements of Design - Point, Line, Shape, Space, Texture and Colour. Principles of Design - Proportion, Balance, Rhythm, Emphasis, and Harmony. • Principles of perspective drawing - Horizon, Vanishing points, Landscape drawing, one point, two point and three-point perspective drawing. 	
Unit – 3	10 Hrs.
<ul style="list-style-type: none"> • Colour wheel - primary, secondary, and tertiary. Colour Dimensions - Hue, value and chroma, tint, tone, shade. • Colour Scheme - Monochromatic, analogous, complementary, split complementary, triadic, square, and rectangle (or tetradic). 	
Unit – 4	10 Hrs.
<ul style="list-style-type: none"> • Fashion illustration - Stick, block and fleshing of the fashion figure. • Fashion figures- 8 head, 10 head, and 12 head figures in simple standing poses. 	

I Semester
B.Sc. Fashion and Apparel Design
FAD 1.3 T – Basics of Pattern Making and Sewing - (Theory)

FAD 1.3 T	Exam Hours: 03 Hrs.
Total Hrs.: 56	Exam Marks: 80
Number of Theory Credits: 3	Internal Assessment: 20

Course outcomes: On successful completion of the course, the students will be able to
1. Understand fundamentals of pattern making techniques.
2. Identify tools and equipment specific to pattern making and sewing.
3. Acquire knowledge on anthropometry and body measurements.
4. Interpret and translate fashion concepts to flat pattern techniques.
5. Apply stitch and seam standards for apparel.

Unit – 1	14 hrs.
<ul style="list-style-type: none"> • Pattern Making and Sewing - Introduction to Pattern Making Techniques - Drafting, draping, flat pattern, types of patterns – block pattern, commercial pattern, custom made and made-to-measure patterns. Introduction to tools used for pattern making and sewing - measuring tools, marking tools, cutting tools, sewing tools, pressing tools. Paper- Introduction, types and GSM used for pattern making, and its uses. • Sewing Machine - History, parts and function of a sewing machine, domestic sewing machine, industrial sewing machine, difference between domestic and industrial sewing machine, varieties of industrial sewing machines - single needle lock stitch machine, double needle lock stitch machine, chain stitch machines, over-lock machine. Care and maintenance, sewing machine problem – causes and remedies. • Sewing Machine Needles – introduction, types, parts and functions. Sewing Machine special attachments. Sewing threads – introduction, types, function, performance, characteristics and uses. 	
Unit – 2	14 hrs.
<ul style="list-style-type: none"> • Anthropometric Study - Introduction to body measurements, (horizontal, vertical and girth measurement) types, body measuring methods and standardization of body measurement. • Size charts – introduction, types, categories of size chart and its importance. • Pattern Making Terminologies – Marks and symbols (notches, punch/circles,) pattern information (grain, part, piece, cut symbols) seam allowance, fabric terms (grain, bowing, skewing). 	

Unit – 3	14 hrs.
<ul style="list-style-type: none"> • Hand stitches – Introduction, temporary and permanent stitches, methods, importance. • Applications of basting, running, tacking, hand overcast, chain, buttonhole, hemming stitches - plain and blind hemming. • Machine stitches - Lock and overlock stitches. • Stitches and Seams – Introduction, definition, ASTM Standards, classifications and applications and seam dimensions. 	
Unit – 4	14 hrs.
<ul style="list-style-type: none"> • Flat Pattern Technique - Introduction, types, application and uses - pivot and slash technique. Single dart and double dart series. Radiating, graduating darts and Dart clusters. • Dart Equivalent - Conversion of darts to tucks, pleats, gathers, flares and styelines- princess line and parallel line. • Basic Pattern Set – Introduction to children’s block and women’s (bodice front, back, sleeve, skirt - front and back, trouser – front and back). 	

References
1. Allyne Bane, “Flat Pattern Design”, McGraw-Hill Inc. US, 1972, Fairchild publication 2010
2. Gerry Cooklin, “Introduction to Clothing Manufacture”, Wiley-Blackwell, 2nd edition, 2010
3. Harold Carr & Barbara Latham, “The Technology of Clothing Manufacture”, Oxford Publications, USA, 1994.
4. Helen J Armstrong, “Pattern Making for Fashion Design”, Pearson Education India, 5th edition, 2016.
5. Injoo Kim et. al., “Apparel Design through Patternmaking”, Fairchild Books, 2022.
6. Laing R. M., Webster, “Stitches and Seams”, The Textile Institute, 1999.
7. Lori A. Knowles “Practical Guide to Patternmaking for Fashion Designers: Juniors, Misses and Women”, Fairchild Books, 2005
8. Padmavati B. “Techniques of Drafting and Pattern Making: Garments for Kids and Adolescents” 2022
9. Winfred Aldrich, “Metric Pattern Cutting Children's Wear and Babywear” 3rd Edition John Wiley & Sons, 4th edition, 2014
10. Zakaria, Norsaadah, “Clothing for Children and Teenagers: Anthropometry, Sizing and Fit”, Woodhead Publishing Ltd, 2016.

**I Semester B.Sc.
FD 1.3 P – Basics of Pattern Making and Sewing - (Practical)**

FAD 1.3 P	Exam Hours: 03 Hrs.
Total Hrs.: 42	Exam Marks: 40
Number of Practical Credits: 2	Internal Assessment: 10

Course outcomes: On successful completion of the course, the students will be able to
1. Demonstrate proficiency in basic pattern making and sewing
2. Accurately take body measurements
3. Translate fashion concepts to flat pattern technique

Unit – 1	10 hrs.
<ul style="list-style-type: none"> Pattern Making & Sewing tools: Identification and sketching of tools used for pattern making and garment construction - measuring tools, marking tools, cutting tools, sewing tools, pressing tools. Sewing machine parts and function, threading of machine. Stitching practice on paper and fabric (straight, curves, corners and circular). Sketching of pattern making and sewing terminology chart (Marks and symbols). Collection of papers of various GSM used in pattern making. Sewing machine needles - types, parts and functions and Special attachments. Care and maintenance of sewing machine. 	
Unit – 2	12 hrs.
<ul style="list-style-type: none"> Development of samples using sewing techniques - Basic hand stitches - basting, running, chain, tacking, hand overcast, buttonhole, hemming stitches - plain and blind hemming, slip stitch, tailor's tack. Machine stitches - seam and seam finishes - plain, flat fell, French, turned and stitched, lapped, double top, pinked, over lock, pinked and stitched. Demonstration of taking body measurements, anthropometric study, average analysis of body measurements and standardizing the measurements (at least measurements of 30 people to be collected for an average analysis). Sample development of size chart for kids and women 	
Unit – 3	10 hrs.
Development of children and infant block <ul style="list-style-type: none"> Infant block Children – girls and boys block 	
Unit – 4	10 hrs.
Development of Basic Block <ul style="list-style-type: none"> Women's basic block set – front, back bodice, skirt – front and back, sleeves. 	

**II Semester B.Sc.
B.Sc. Fashion and Apparel Design
FAD 2.1 T – Fabric Science (Theory)**

FAD 2.1 T	Exam Hours: 03 Hrs.
Total Hrs.: 56	Exam Marks: 80
Number of Theory Credits: 3	Internal Assessment: 20

Course outcomes: On successful completion of the course, the students will be able to
1. Understand fundamentals of fabric construction.
2. Identify and differentiate fabric types and structures.
3. Identify and classify common fabric structures based on visual appearance and performance.
4. Utilize knowledge of fabric construction techniques in selection of fabric
5. Evaluate the performance and suitability of fabric for apparels.

Unit – 1	14 Hrs.
<ul style="list-style-type: none"> • Introduction to fabrics - Classification based on manufacturing technology. Methods of fabric formation - Woven, knitted, and nonwoven, their properties and end use. • Classification of woven fabric - Khadi, handloom, and power loom fabrics. • Woven fabric formation - Weaving preparatory, objectives and brief study of process- warping, sizing, drawing, denting and weft winding. 	
Unit – 2	14 Hrs.
<ul style="list-style-type: none"> • Introduction to hand loom and power loom - classification, working principles. • Study of primary, secondary, and tertiary motions of loom. Process of manufacturing in power loom. • General characteristics of woven fabrics and their importance - Yarn count system, fabric grain, thread density, fabric width, fabric weight – GSM. 	
Unit – 3	14 Hrs.
<ul style="list-style-type: none"> • Elementary weaves- Classification of woven fabrics. Characteristics, construction, salient features: Plain weave- variation (rib and Basket); Twill weave - variation (RHT, LHT, Pointed and Herringbone); Satin/Sateen weave - variation. • Fabric design and graphical representation of above weaves. Surface appearance of basic weaves with properties. • Introduction and salient features of crepe, georgette, chiffons, extra threads, warp and weft pile, brocade and damask, terry pile structures. Selvedge & its types. 	

Unit – 4	14 Hrs.
<ul style="list-style-type: none"> Knitting – Introduction, terminologies, classification: warp and weft knitting. Various types of knitting: Single jersey, purl, rib, and interlock, modified single jersey knitting. Properties of each stitch with loop diagrams. Non-wovens - Introduction, definition classification and types - needle punch, spun bonding technique, felting and their application in various fields. 	

References
1. Bernard P. Corbman, “Textiles: Fiber to Fabric”, McGraw Hill Education, 6th edition, 1995.
2. Gokarneshan N, “Fabric Structure & Design”, New Age International Private Limited, 2nd edition, 2014.
3. Grosicki, Z J, “Watson’s Textile Design & Colour”, Wood Head Publication, 7th edition, 1975.
4. Hayavadana J, “Woven Fabric Structure Design and Product Planning”, WPI, 2015.
5. Karthik T et. al., “Non-woven - Process, Structure, Properties and Applications”, Woodhead Publishing India Pvt Ltd., 2016.
6. Pizzuto, J J, “Fabric Science”, Fairchild Publications, 10th edition, 2018.
7. Prabir Kumar Banerjee, “Principles of Fabric Formation”, CRC Press, 2018
8. Purushothama B, “Handbook of Fabric Manufacturing”, Woodhead Publishing India Pvt Ltd., 2016.
9. Siba Prasad Mishra, “Design and Structure of Textile Fabrics”, Woodhead Publishing India Pvt Ltd., 2020.
10. Thangamani K, Sundaresan S, “Fabric Manufacturing Technology Weaving and Knitting”, CRC Press, 2022.

**II Semester B.Sc.
FAD 2.1 P – Fabric Science (Practical)**

FAD 2.1 P	Exam Hours: 03 Hrs.
Total Hrs.: 42	Exam Marks: 40
Number of Practical Credits: 2	Internal Assessment: 10

Course outcomes: On successful completion of the course, the students will be able to
1. Design and develop fabric patterns.
2. Analyze and differentiate the fabric structures through hands on examination and testing.
3. Prepare fabric folio for different application.

Unit – 1	12 hrs.
<ul style="list-style-type: none"> Geometric parameters of Woven fabrics- Warp and weft count, thread density, cover factor, crimp percentage, fabric thickness, fabric weight /GSM. 	
Unit – 2	10 hrs.
<ul style="list-style-type: none"> Sample development of woven fabric using satin ribbons for the weaves with design, draft and lifting plan Plain and its variations (rib and matt), Twill (RHT and LHT), Satin and Sateen. *Sample size 5x5 inch for each sample. Geometric parameters of knitted fabrics - Stitch density, fabric thickness, fabric weight /GSM. 	
Unit – 3	10 hrs.
<ul style="list-style-type: none"> Collection and portfolio preparation of different commercial samples with different weave structures - Organdy, muslin, taffeta, shantung, canvas, tweed, oxford shirting, monk's cloth, chiffon, georgette, seersucker, denim, gabardine, satin, sateen, brocade, damask, leno, or gauze with geometric parameters. Collection and development of fabric portfolio of the different commercial samples with different weaves and weight. Apparel - Women's wear (formal, casual, party, sports/active wear, leisure wear). Furnishing - Fabric used for curtains, upholstery (furniture cover cloth). Households' application - Kitchen towels. Mop cloth, carpets, and tablecloth etc. Support materials for garments and trims - Interlinings, linings, tapes, elastic, shoulder pad. *4 Samples for each category (sample size - 2x2 inch). 	
Unit – 4	10 hrs.
<p>Sample collection</p> <ul style="list-style-type: none"> Knit structures - single knits - single jersey, Lacoste. Double knits - rib knit, purl knit, interlock knit, cable fabric, bird's eye, cardigans, Milano ribs. Single jersey, Purl, Rib. *Sample size 5x5 inch for each sample Non-Woven - Felts, needle punch, tea bag paper, face cloths, shingling and synthetic fiber paper. <p>Note: Minimum 15 samples (Folio).</p>	

II Semester B.Sc.
B.Sc. Fashion and Apparel Design
FAD 2.2 T – Fashion Design and Illustration (Theory)

FAD 2.2 T	Exam Hours: 03 Hrs.
Total Hrs.: 56	Exam Marks: 80
Number of Theory Credits: 3	Internal Assessment: 20

Course outcomes: On successful completion of the course, the students will be able to
1. Trace the evolution of fashion illustration from its origin.
2. Study historically significant movements in fashion.
3. Understand and use correct fashion terminology for fashion elements
4. Develop skills in designing and illustrations for wide range of styles.
5. Develop a well-informed personal perspective on fashion and its influence

Unit – 1	14 hrs.
<ul style="list-style-type: none"> • Introduction to Fashion Illustration and brief history of fashion illustration. Study of well-known National fashion Illustrators (Raja Ravi Varma, M.F. Husain), International fashion illustrators (René Bouché, David Downton, Jason Brooks, Lorenzo Mattotti) their contribution and influence. • Fashion figure - Study of various proportions, balance line in drawing fashion figures, gestures and movements. 6 1/2, 8 head, 10 head, 12 head figures, the fashion face arms, legs, hands and feet. • Figure analysis, body types - Hourglass, inverted triangle, pear shape, apple shape and lean column (rectangular) designing for diverse body types and ages - infant, toddler, children, young boys, and girls. 	
Unit – 2	14 hrs.
<ul style="list-style-type: none"> • Garment style features - Silhouettes - types of silhouettes. Sleeves - set-in sleeve and bodice combination sleeves. • Dress and Blouses - formal and casual. Shirts - men and women. Skirts - flared, pencil, circular, pegged, gored. Trousers - pencil, pleated, bell bottom, cargo, flared. Collars - shirt, shawl, mandarin, flat, peter pan. Yokes - yoke with fullness, yoke without fullness, asymmetrical yokes. Pockets - patch, welt, side, kangaroo, in-seam pocket. Cuffs - single, double, pointed, French cuff, and band cuff. • Fashion clothing categories - Introduction, types, based on age and activity, styling, price and size ranges for men's, women's and kid's wear. 	

Unit – 3	14 hrs.
<ul style="list-style-type: none"> • Fashion seasons – - winter, summer, spring and autumn. • Introduction and terminologies - International market and Indian market, design, prototype, manufacturing, product launch, retail store, couture, RTW, mass-produced, fashion designer, stylist, fashion journalist, fad, fit, pattern, size label, care label, laundering, fashion shows, catwalk, fashion magazines, webzines, social media, lingerie, longue wear, fragrance, endorsement, model, mannequin, merchandise. • Fashion clothing psychology - Political, Social, Environmental, Geographical, Cultural influence. Environment of fashion, Color Psychology, human behavior and clothing, clothing and gender differentiation, clothing and personality, clothing and attitude, clothing and motivation, Grooming (for male and female). 	
Unit – 4	14 hrs.
<ul style="list-style-type: none"> • Fashion brands - Fashion Branding: Elements of Branding - Logo, Color, Typography; Legacy, Concept to Runway, Style and Strategies. • Indian fashion designers - Sabyasachi Mukherjee, Ritu Kumar, Ritu Beri, JJ Valaya, Wendell Rodrick's, Raghavendra Rathod, Manish Malhotra, and their brands based on following criteria - Introduction of the designer, education, specialty, brand / label, contribution to fashion, product range, outlets, collection showcase. Fashion brands, fashion capitals, fashion icons and role of fashion in movies, sports and politics. • International fashion designers- Christian Dior, Gianni Versace, Coco Chanel, Donna Karan, Calvin Klein and their brands based on following criteria - Introduction of the designer, education, specialty, brand / label, contribution to fashion, product range, outlets, collection showcase. Fashion brands, fashion capitals, fashion icons and role of fashion in movies, sports, and politics. 	

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3. Carolyn Mair, "The Psychology of Fashion", Routledge, 2018.
4. Jaeil Lee, Comitte Steen, "Technical Source Book for Designers", Bloomsbury AcademicUSA, 2 nd edition, 2015.
5. John Wiley, "Theory of Fashion Design" John Wiley and Sons. Inc, New York, 1990.
6. Patrick John Ireland, "Fashion Design Illustration - Children", Batsford, London, 1996.
7. Patrick John Ireland, "Fashion Design Illustration - Women", Batsford, London, 1996.
8. Peacock J, "Fashion Source Books", Thames and Hudson, London, 1998.
9. Tisianna Paci, "Figure Drawing for Fashion Design", Pepin Press Publication, 2002.
10. Stuart McKenzie, "Creative Fashion Illustration", Bloomsbury Academic, 2014.

**II Semester B.Sc.
FAD 2.2 P – Fashion Design and Illustration (Practical)**

FAD 2.2 P	Exam Hours: 03 Hrs.
Total Hrs.: 42	Exam Marks: 40
Number of Practical Credits: 2	Internal Assessment: 10

Course outcomes: On successful completion of the course, the students will be able to
1. Understand and illustrate anatomical proportions, body shapes and features, effective to communicate garment design.
2. Render various fabrics and materials to communicate design.
3. Compare a cohesive portfolio showcasing range of fashion illustration inspired by renowned fashion design.

Unit – 1	12 hrs.
<ul style="list-style-type: none"> Fashion Illustrations - 6½, 8 head, 10 head, and 12 head fashion figures - Standing, Moving and Action. Model drawing - Children, female and male figures. Body figures and features - Face, Eyes, Nose, Lips, Ears, Arms, and Legs. Hair Styling - Women/ Men basics. 	
Unit – 2	10 hrs.
<ul style="list-style-type: none"> Fabric rendering - Learning to simulate textures of various fabrics - Cotton, Silk, Fur, Net, Leather, Velvet, Denim, Corduroy, Georgette, Chiffon, Knitted, Crochet, Lace, Embroidered and Printed. Sketching and Rendering of Garment Features - Blouses - Formal and Casual. Shirts - Men and Women. 	
Unit – 3	10 hrs.
<ul style="list-style-type: none"> Skirts - Flared, Pencil, Circular, Pegged, Gored. Trousers - Pencil, Pleated, Bell Bottom, Cargo, Pedal Pushers. Collars - Shirt, Shawl, Mandarin, Flat, Peter Pan. Yokes - Yoke with Fullness, Yoke without Fullness. Pockets - Patch, Welt, Side, Kangaroo, In-Seam Pocket. Cuffs - Single, Double, Pointed, French and Band Cuff. Sleeves - Set-In Sleeve and Bodice Combination Sleeve. 	
Unit – 4	10 hrs.
<ul style="list-style-type: none"> Development of folio with design concepts inspired by one Indian Designer - Sabyasachi Mukherjee, Ritu Kumar, Ritu Beri, JJ Valaya, Wendell Rodrick's, Raghavendra Rathod, Manish Malhotra, Shyamal and Bhumiika. Development of folio with design concepts inspired by one International Designer - Christian Dior, Gianni Versace, Coco Chanel, Donna Karan, Calvin Klein. 	

II Semester B.Sc.
B.Sc. Fashion and Apparel Design
FAD 2.3 T- Pattern Making and Garment Construction – I (Theory)

FAD 2.3 T	Exam Hours: 03 Hrs.
Total Hrs.: 56	Exam Marks: 80
Number of Theory Credits: 3	Internal Assessment: 20

Course outcomes: On successful completion of the course, the students will be able to
1. Understand the concepts and techniques of fullness in garment designing.
2. Identify and analyze minor and major garment components.
3. Explore and experiment with functional and decorative trims.
4. Learn about different types of closures.
5. Familiarize various garment categories.

Unit – 1	14 Hrs.
<ul style="list-style-type: none"> • Fullness - Introduction, types of fullness- darts, gathers, pleats, tucks, godets, frills, ruffles, shirring, smocking, flounce etc. application and uses. • Minor components - Introduction, classification, and types. Pockets - Definitions, purpose, types - patch pockets, patch pockets with flap, seam pockets, welt pockets and variations. Cuff - Definitions, purpose, types – single, double and shaped cuff. Plackets - Definition, types and purpose- self placket, continuous bound placket, two-piece sleeve placket and shirt placket. Neckline finishes - Definition, types - piping, facing (bias facing, shaped facing) bias binding. 	
Unit – 2	14 Hrs.
<ul style="list-style-type: none"> • Major components - Introduction, definition, classification and types. Collars - Definition, terms, classification and types - Peter pan, sailor, turtle collar, shawl, formal shirt collar, mandarin collar and with its variations. Yokes - Definitions, purpose, types - with fullness and without fullness, shapes. Sleeves – Definition, purpose, terms, classification, and types – set in sleeves and sleeves along with bodice: plain sleeves, gathered sleeve and its variations, circular sleeves, tulip sleeve, raglan and kimono sleeves. 	
Unit – 3	14 Hrs.
<ul style="list-style-type: none"> • Decorative Trims for garment embellishment -Definition, types, frills, ruffles, ricrac, faggoting, applique, lace, motifs, scallop edging, smocking. • Basic Embroidery – introduction to basic embroidery, types of stitches used for kids, men’s and women’s garment. • Handling special fabric – factors to be considered while pattern making and garment construction using special fabrics like stretch fabrics, knits, checks, plaids, velvet, leather, fur and lace. 	

Unit – 4	14 Hrs.
<ul style="list-style-type: none"> • Garment closures - Introduction, types - Hook and eye, press buttons, shirt button and buttonholes, visible and concealed zippers, Velcro, fabric loop closures. • Bifurcated garments - Introduction of culottes, trouser and its variations • Garment categories - Silhouettes - variations, torso dress, princess line, panels, symmetrical and asymmetrical style lines, with and without waistline garments. 	

References
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2. Helen J Armstrong, “Pattern Making for Fashion Design”, Pearson, 5th edition, 2014.
3. Hulme, W. H, “The Theory of Garment-Pattern Making - A Textbook for Clothing Designers, Teachers of Clothing Technology, and Senior Students” 2013
4. Natalie Bray, “Dress Fitting - Basic Principles and Practice”, BSP Professional Book Publishers, 2nd edition, 1991.
5. Natalie Bray, “More Dress Pattern Designing”, Wiley India Pvt. Ltd., 2009.
6. Padmavati B. “Techniques of Drafting and Pattern Making: Garments for Kids and Adolescents” 2022
7. Pat Parish, “Pattern Cutting: The Architecture of Fashion”, Bloomsbury Visual Arts, 2018.
8. Sumitra M, “Advanced Garment Construction Guide”, Woodhead Publishing India Pvt Ltd, 2021.
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II Semester B.Sc.
FAD 2.3 P- Pattern Making and Garment Construction – I (Practical)

FAD 2.3 P	Exam Hours: 03 Hrs.
Total Hrs.: 42	Exam Marks: 40
Number of Practical Credits: 2	Internal Assessment: 10

Course outcomes: On successful completion of the course, the students will be able to
1. Demonstrate proficiency in incorporating pattern making and garment construction to enhance the design aesthetics and functionality.
2. Acquire skills in constructing and assimilating minor and major components.
3. Understand techniques to apply decorative trims effectively to enhance aesthetics.

Unit – 1	10 Hrs.
<ul style="list-style-type: none"> • Development of fullness Samples- darts, gathers, pleats, tucks, godets, frills, ruffles, shirring, smocking, flounce etc. • Development of Minor Component samples. Pockets - patch pockets, patch pockets with flaps, seam pockets, welt pockets and variations. Cuff - single, double and shaped cuff. Plackets - self placket, continuous bound placket, two-piece sleeve placket and shirt placket. Neckline finishes - piping, facing (bias facing, shaped facing) bias binding. 	
Unit – 2	10 Hrs.
<ul style="list-style-type: none"> • Development of Major Component samples. Collars - Peter pan, sailor, turtle collar, shawl, formal shirt collar, mandarin collar and with its variations. Yokes - with fullness and without fullness, shapes. Sleeves – plain sleeves, gathered sleeve and its variations, circular sleeves, tulip sleeve, raglan and kimono sleeves. 	
Unit – 3	10 Hrs.
<ul style="list-style-type: none"> • Development of Decorative Trims for garment embellishment -, basic embroidery, frills, ruffles, ricrac, faggoting, applique, lace, motifs, scallop edging, smocking. Development of folio. • Development of sample for garment closures - Hook and eye, press buttons, shirt button and buttonholes, visible and concealed zippers, Velcro, fabric loop closures. 	
Unit – 4	12 Hrs.
Develop garments using major and minor components: <ul style="list-style-type: none"> • Kids Zabla • A-Line frock with peter pan collar and gathered sleeves • Boys shirt with open collar • Basic shirt with patch pocket 	

Outline for Continuous Assessment

Theory

Activity	C1	C2	Total
Session Test	10%	-	10%
Seminars/Presentations/Activity	-	05%	05%
Assignment/Field Work	-	05%	05%
Total	10%	10%	20%

Practical

Activity	C1	C2	Total
Test / Performance	05%	-	05%
Activity/Field Visit	-	05%	05%
Total	05%	05%	10%

QUESTION PAPER PATTERN (Theory)

I/II Sem. B.Sc. Examination
(2024-25 Onwards)
FASHION & APPAREL DESIGN
Paper code and Title of the paper

MAX MARKS-80

TIME: 3Hrs

Instructions to the Candidates: i. All sections are compulsory
ii. Illustrate wherever necessary

Section –A

I Answer any Ten of the following:

10X2=20

- 1.
- 2
- 3.
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12

Section –B

II Answer any Five of the following:

5X4=20

- 13
- 14
- 15
- 16
- 17
- 18
- 19

Section –C

III Answer any Five of the following:

5X8=40

- 20
- 21
- 22
- 23
- 24
- 25
- 26

QUESTION PAPER PATTERN (Practical)

**I/II Sem. B.Sc. Examination
(2024-25 Onwards)**

FASHION & APPAREL DESIGN
Paper code and Title of the paper

MAX MARKS-40

TIME: 3 Hrs

Instructions to the Candidates: All the questions are compulsory

- | | |
|--------------|----------|
| 1. | 10 Marks |
| 2. | 10 Marks |
| 3. | 05 Marks |
| 4. Record | 10 Marks |
| 5. Viva Voce | 05 Marks |